Paper No.19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte FRANK S. CARUSO

Appeal No. 2001-1043
Application No. 08/734,738

ON BRIEF

Before WILLIAM F. SMITH, ADAMS, and GREEN, Administrative Patent Judges.

GREEN, Administrative Patent Judge.

DECISION ON APPEAL

An oral hearing in this case was scheduled for April 23, 2002. Upon reviewing the case, however, we have determined that an oral hearing will not be necessary and we render the following decision based on the record. See 37 CFR § 1.194(c).

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 24-33. Claim 24 is representative of the subject matter on appeal, and reads as follows:

24. A composition comprising at least one morphinan selected from the group consisting of dextromethorphan, dextrophan and the pharmaceutically

acceptable salts thereof and at least one pharmacologically active agent selected from the group consisting of anticholinergics, tricyclic antidepressants, antispasmodics, direct-acting bladder smooth muscle relaxants, estrogens, compounds having estrogen-like activity, and any combination of the forgoing.

The specification states that the claimed compositions are useful for treating urinary incontinence. See Specification, page 3. The specification also teaches that morphinans, such as dextromethorphan and dextrophan, are non-competitive NMDA receptor antagonists. See id. at 2. Claims 25, 28, 29 and 30 further define the anticholinergic, the antidepressant, the antispasmodic and the compound having estrogen-like activity, respectively. Claims 26, 27 and 31 through 33 all specify that the claimed composition be in sustained release dosage form.

The examiner relies on the following references:

Thor	5,192,751	March 9, 1993
Mayer et al. (Mayer)	5,321,012	June 14, 1994

In addition, we refer to the following references, copies of which are attached to this opinion:

Nelson	4,316,888	February 23, 1982
Musacchio et al. (Musacchio)	4,898,860	February 6, 1990

The claims stand rejected under 35 U.S.C. § 103 over the combination of Thor, Mayer, and alleged admissions in the specification. After careful review of the record and arguments before us, we reverse. However, we raise other prior art issues relating to the patentability of the claimed compositions

DISCUSSION

The claims stand rejected under 35 U.S.C. § 103 as being obvious over Thor, Mayer and the admission in the specification, particularly at page 1. The pertinent part of the rejection is reproduced below.

> Thor teaches that NMDA antagonists broadly, possess activity which may be useful in the treatment of disorders of urinary incontinence. See particularly column 2, lines 42-58 therein. The claims differ in that they are drawn to compositions containing particular NMDA antagonizing compounds in combination with at least one more pharmacologically active agent which compositions may be in a sustained release dosage form.
>
> One of ordinary skill would have found it obvious to employ dextromethorphan or dextrophan in a composition for the treatment of urinary incontinence since these compounds were known to have NMDA antagonizing activity. See Meyer et al. particularly the abstract. Any NMDA antagonizing compound would be reasonably expected to be similarly useful in the treatment of urinary disorders herein.

Answer, pages 3-4.

Appellant argues that Thor is drawn to the use of competitive NMDA receptor antagonists, and that the one example of a non-competitive receptor antagonist disclosed in the Thor patent, MK-801, was discussed as increasing the frequency of micturition (urination). Thus, appellant argues that the disclosure of Thor in fact teaches away from the claimed compositions. In response, the examiner asserts that "the overwhelming weight of the evidence in Thor would teach towards the employment of a compound which blocks an NMDA receptor by any means in the treatment of urinary incontinence," and that "[t]he criticality of the particular mechanism of NMDA receptor antagonism or blockade to the treatment of urinary incontinence is not seen." Answer, pages

5-6 (emphasis in original).

The burden is on the examiner to set forth a prima facie case of obviousness. See In re Alton, 76 F.3d 1168, 1175, 37 USPQ2d 1578, 1581 (Fed. Cir. 1996). In assessing the prior art, each prior art reference must be considered in its entirety in an obviousness determination. In re Wesslau, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965). As stated in Panduit Corp., F.2d at 1093, 227 USPQ at 344 "[t]he well established rule of law is that each prior art reference must be evaluated as an entirety, and that all of the prior art must be evaluated as a whole." See W.L. Gore & Assocs., Inc. v. Garlock, Inc., 727 F.2d 1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984); In re Kuderna, 426 F.2d 385, 390, 165 USPQ 575, 578-79 (CCPA 1970). In assessing the teachings of the prior art reference as a whole, the examiner must also consider those disclosures that may teach away from the invention. See In re Fine, 837 F.3d 1071, 1074, 5 USPQ2d 1596, 1598 (1988).

Thor, when considered in its entirety, teaches the use of competitive NMDA antagonists in the treatment of urinary incontinence. There is only a single disclosure of the use of a non-competitive NMDA antagonist in the Background of the Invention section of the patent, which states:

> In humans, it has been shown that the highest density of NMDA receptors in the spinal cord are located at the sacral level, including those areas that putatively contain bladder parasympathetic preganglionic neurons. Because NMDA receptors are excitatory in nature, pharmacological blockade of these receptors would suppress bladder activity. Recent studies have shown that MK-801, a non-competitive NMDA antagonist, increases the volume necessary to elicit micturation (urination) and decreases the amplitude of the micturation contraction. However, these studies

> have shown that the inhibitory effects of MK-801 are not stereospecific, suggesting that non-specific effects of MK-801 mediated the bladder inhibition. Also, these studies have shown that MK-801 produces endocrine effects that are dissociated from its NMDA antagonism. A separate study has shown that the administration of MK-801 to conscious, freely moving rats produces an increase in the frequency of micturation.

Thor, col. 2, lines 44-68 (citations omitted).

One of ordinary skill in the art would read this passage, in the context of the overall disclosure of the use of competitive NMDA antagonists in the treatment of urinary incontinence, to signify that the inventors have overcome the problems associated with the use of noncompetitive NMDA receptor antagonists by using competitive NMDA receptor antagonists. Thus, the ordinary artisan would read Thor as teaching away from the use of noncompetitive NMDA receptor antagonists, such as dextromethorphan and dextrophan, in compositions for the treatment of urinary incontinence. Mayer discloses that morphinans blocks NMDA receptor activation, but does not remedy the deficiencies of Thor because Mayer does not speak to the use of morphinans in treating urinary incontinence. Because one of ordinary skill in the art would read Thor as teaching away from the use of noncompetitive NMDA receptor antagonists in the treatment of urinary incontinence, and as neither Meyer nor the portion of the specification relied upon by the examiner remedy that deficiency, the rejection does not set forth a prima facie case of obviousness, and is thus reversed.

OTHER MATTERS

We note that the rejection of the composition claims on appeal was made in the context of the use of the composition disclosed in the specification—the treatment of urinary incontinence. But the treatment of urinary incontinence is intended use, and does not serve to limit the claimed compositions.

The panel has discovered several references pertinent to the patentability of the claimed compositions in a brief search of only the patent literature. The first reference is U.S. Patent No. 4,898,860, to Musacchio et al. That reference discloses that an agent such as atropine, one of the claimed anticholinergics, is not a potent competitor of [^{3}H]dextromethorphan binding. See Musacchio, column 13, line 67-column 14, line 3. The competition study would read on the composition of claim 24 because the composition is not limited to any particular form, the competition study would require the atropine and the dextromethorphan to be present in the same solution, and the use of "comprising" allows the presence of other components in the composition. The second reference, U.S. Patent No. 4,316,888, to Nelson, specifically discloses a pharmaceutical composition comprising dextromethorphan in combination with an anticholinergic, such as atropine. See, e.g., Column 1, line 61-column 2, line 6.

Upon receipt of this application, the examiner may want to address the patentability issues raised in this section, as well as searching for addressing the composition per se, and not in the context of its intended use.

CONCLUSION

The rejection under 35 U.S.C. § 103 before us on appeal is reversed.

The panel has, however, raised other issues for the examiner's attention.

REVERSED

William F. Smith	)
Administrative Patent Judge	)
	)
	)
	) BOARD OF PATENT
Donald E. Adams	)
Administrative Patent Judge	) APPEALS AND
	)
	) INTERFERENCES
	)
Lora M. Green	)
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